

CHIEF OF POLICE, NEW YORK CITY

APPENDIX D
SUMMARY OF FIELD PROCEDURES

Caltrans Task Order No. 11-199361-VB

PSI PROCEDURES FOR COMPLETING SOIL BORINGS

The following paragraphs describe PSI procedures for completion of soil borings.

1. Soil borings are advanced with a hollow-stem, continuous-flight auger. The outside diameter (OD) of the auger is determined by the purpose of the boring. For soil sample collection or well installation, usually 6-, 8- or 10-inch OD augers are used.
2. The boring, if vertical, is advanced to a specified depth below ground surface. If the boring is slanted from vertical, the auger is placed at the specified angle to vertical and then advanced to a specified depth.
3. During drilling, a log of the sediments is made by field personnel in accordance with the Unified Soil Classification System.
4. The augers are steam-cleaned before drilling to prevent cross-contamination of borings. The rinseate resulting from cleaning will be stored on site in DOT-approved, 55-gallon drums.

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PSI PROCEDURES FOR SOIL SAMPLING DURING DRILLING

The following paragraphs describe the PSI procedures for soil sampling during drilling, using hollow-stem, continuous-flight augers.

1. Soil samples are collected using a 2.0- to 2.5-inch inside-diameter, modified California split-spoon sampler. The sampler is lined with two to three 6-inch long, 2.0- to 2.5-inch diameter brass tubes for containment of the soil samples.
2. To avoid cross-contamination of samples, the sampler and rings are washed before each use with phosphate-free detergent and double rinsed with distilled water.
3. At the prescribed sampling interval of 5 feet, the sampler is attached to the drive rod and driven 18 inches into undisturbed soil below the lead auger with a 140-pound hammer that is repeatedly dropped from a 30-inch height. The number of drops is recorded during each 6-inch increment and used as a qualitative determination of soil consistency and density.
4. The lead (deepest) brass tube is recovered from the sampler, sealed with Teflon lined plastic end caps, labeled, placed in a sealable plastic bag, and stored on ice or equivalent medium sufficient to maintain a sample temperature of less than 4 degrees centigrade until the samples are received by a certified hazardous waste laboratory.
5. The sample is recorded on a chain-of-custody form to document movement of the sample.
6. The sampled interval is classified using the remaining tubes and described on a log of soil boring form, following the Unified Soil Classification System.

PSI PROCEDURES FOR GROUNDWATER SAMPLING DURING DRILLING USING A
HYDROPUNCH

The following paragraphs describe the PSI procedures for groundwater sampling during drilling, using a Hydro-Punch.

1. Upon reaching the top of the ground water, as determined by visual inspection for moisture in the samples, a stainless-steel screen casing is advanced to a minimum of 3 feet below the top of water and 2 feet above water. The sleeve is retracted to allow water to enter the filter screen.
2. Groundwater is sampled using a disposable bailer or reusable stainless steel bailer.
3. Collected water is decanted directly into laboratory supplied glass containers for organic analyses or into plastic bottles for inorganic analyses.
4. Each collected water sample is labeled, recorded on a chain-of-custody form, and placed on ice while awaiting transport to a certified hazardous waste laboratory.
5. All reusable Hydro-Punch equipment is decontaminated prior to each use by steam cleaning.